



Munich Personal RePEc Archive

Brains that make revolutions

Fernando Estrada and Boris Salazar

Universidad Externado de Colombia, Facultad de Finanzas,
Gobierno y Relaciones Internacionales, Universidad del Valle,
Departamento de Economía

28. October 2010

Online at <https://mpa.ub.uni-muenchen.de/26276/>

MPRA Paper No. 26276, posted 3. November 2010 09:07 UTC

**BRAINS THAT MAKE REVOLUTIONS:
The Neural Theory in the French Revolutions (1789-99, 1848-51, 1870-71), Iran
(1977-81) and Bolshevik (1917-1924).**

Fernando Estrada – Boris Salazar

Abstract:

This paper work assesses the key aspects of a framework for research on revolutions. Our approach includes a heuristic based on an idea suggested by Marx in the *18th Brumaire of Louis Bonaparte*: “The tradition of all dead generations weighs like a nightmare on the brain of the living”. From this maxim of Marx advance on conventional interpretations by postulating that the language and metaphors are a challenge in several respects: (1) The brain is a physical basis for understanding key political revolutions, (2) advances in neuroscience and language (Lakoff/Johnson/Narayanan) have allowed the reconstruction of conceptual frameworks in various fields, including philosophy, mathematics and politics (3) The language expressed in songs, text, flags, emblems, illustrations, slogans, speeches and rumors is key to represent and demonstrate loyalty to the idea of revolution and, more crucially, to “make” the revolution, (4) Metaphors are a powerful rational action in revolutionary processes. One interpretation of these can contribute to decipher, for example, how the brain are activated in neural systems that link past and present, how to operate the symbolic frameworks of language to influence political opinion, how metaphors interact with processes artificial simulation or how metaphors evolve in a revolution from simple metaphors.

Keywords: Revolutions, French Revolution, Iran Revolution, Russian Revolutions, Language, Neural Theory

Introduction

Consider the famous statement of Marx in *The Eighteenth Brumaire of Louis Bonaparte*, on the eternal return of past revolutions,

Men make their own history, but do not do as they want, not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brain of the living. (Marx 1852, 15)

This eternal return of the last trade is made, substitutions and metamorphosis. In the revolution of 1848-51 the characters in this replaced the heroes of the great French Revolution of 1789. Marx makes the list of substitutions visible: Caussidière for Danton, Louis Blanc for Robespierre, the Montagne de la Montagne 1848-51 and from 1793 to 1795, the nephew of his uncle. That the livings take the place of the dead can pass as a simple substitution process stage, but the tradition of all dead generations weighs on the brains of living goes far beyond the appellant's theatrical revolutionary drama. It is, in fact, an inevitable condition of any revolutionary process¹. Tradition weighs on the brains of the living, revolutionary trance, because they have no alternative. How to get to the action from the new, if still there again? How to avoid the weight of tradition if you could replace it is just emerging? How not to resort, in the midst of uncertainty, what is accumulated in the brain? A first guess, but every revolution is a leap into the unknown, none is triggered by the irresistible force of the new. Neither the major ideas of philosophers and ideologies and utopias of revolutionary ideas are circulating in the brains of the masses into action that made the revolution. Nor are these big ideas that lead the people to action.

This is not to say that great ideas or revolutionary ideologies have nothing to do with the revolutions. Only how do you not been granted the conventional history of revolutions. In reality, the language plays the role of privileged space filter and interconnection between large brains and revolutionary ideologies of the masses that make revolutions. Are the metaphors and the sets of metaphors emerging in conversations inundated with ideologies that activate neuronal circuits, reinforcing some and inhibiting others, in processes that are still undiscovered Orlando Figes (1996), in his fascinating and comprehensive history of the Russian Revolution, shows the complex trajectories of the major ideologies in shaping the mentality of the Russian revolutionaries, Bolsheviks, Mensheviks, Socialist Revolutionaries, anarchists, in the activation brains, and the generation of the actions of the revolutionary crowds. Marxist ideology is not that the revolutionary masses (proletarians, peasants, and intellectuals, unemployed) are in the course of the Russian revolution. It Marx, filtered through the reading done by the *intelligentsia*² of all parties and ideological trends, and Russian culture. It is this ideology, mediated by reading and traditions, which activates the neuronal circuits of the masses in the course of the revolution. Filtration is not safe. The Russian *intelligentsia* interprets Marxism as a science, on par with the evolutionism of Darwin and, through them; it becomes the subject of active worship. Lenin's phrase

¹ The Japanese philosopher Kojin Karatani (2006) has developed the original interpretation, and perhaps more relevant for our purposes, of *The Eighteenth Brumaire of Louis Bonaparte*. For him, Marx's dreamlike sequences in this work are an application of the transformation of the goods to the field of politics and, incidentally, a foreshadowing almost complete Freud's method in *The Interpretation of Dreams*.

² As Figes notes (op. cit., 125), the word is Russian *intelligentsia* by derivation.

eloquently illustrates how Marxism was seen by some Russian intellectuals: "Marxism is omnipotent because it is accurate".

Marxism allows the Russian *intelligentsia* discovered a blow to the proletariat, progress and, in this way, the road to revolution. Progress toward capitalism and the development of a strong urban proletariat were the two basic conditions to make revolutionary change. Marxists and populists, despite their obvious differences, they became another in a long and deep field of interaction in the closed world, hostile and optimistic hiding in the context of Czarism. As Figes raises the same:

The Russian *intelligentsia* ... was less a mental state class: by definition meant a radical opposition, and without compromise, the Tsarist regime, and a willingness to participate in the struggle for the overthrow ... Most revolutionary leaders was first, and especially intellectuals. Their heads were full of history and European literature, especially the history of the French revolutions of 1789 and 1848. (Figes, op. Cit., 125)

That state of mind was not made only of revolutionary ideas and illusions. What we refer to as: social conversations and spontaneous systematic processes of exchange and transformation of opinions, ideas, images, beliefs, and prejudices. The key to these processes lies in its effective incorporation of social and symbolic content. Social conversations to which we refer did not occur in a vacuum depended defined sociability. Organizations, parties, tea rooms, clubs, reading rooms, associations and cooperatives were some of the specific ways in which the Russians shared their ideas, exchange opinions, and eventually came to action. In their deployment and activity, these structures are not only linked by diverse ties to current participants, but that connected the past with the present and the future, contributing to the formation of collective memory. Figes's characterization of the Russian intelligentsia is relevant to illustrate the analytical possibilities of the concept of social conversation and its role in the revolutionary process:

Those who considered themselves intelligently: (students, writers, professionals, etc.) Had a special set of ethics, codes of dress and language shared, notions of honor and camaraderie, not to mention lounges and coffees, clubs and social circles newspapers and magazines, that put them aside, as a kind of sub-culture, the rest of the privileged society that most of them had emerged. (Ibid, emphasis added.)

Of course, these intellectuals alone could not make the revolution. The activation process of the popular social networking and the brains of workers, peasants, immigrants and unemployed, involved reach their deepest instincts and traditions through metaphors more effective than competing political ideologies. It is necessary to

understand then why the proletarian revolution ended up being the systematic physical destruction of the bourgeoisie through a symbolic violence of a magnitude never seen before. To do so, we must find the paths traveled by the language and set of metaphors that triggered the brains of the crowds during the revolution and get a first approximation to circuits that were activated during this revolution, and of Iranian and French revolutions.

If they are not great ideas or revolutionary ideologies that led the crowds to revolutionary action, what is it that drives them to risk their life processes whose results are unknown and belong to the registration of uncertainty? We suggest that behind this enigma is the impact of the inevitable interaction in the brains of those who make revolutions, between old and new, between the known and unknown, between existing routines and new actions to meet, between tradition and change. When societies face the drama of revolutionary change have no choice but to resort to the ideas of the past finding them in the only place they can do it: in the brains of the living.

Marx's text quoted above offers a clue to the inevitable interaction between old and new, and find the heard that the new should be given through the old to turn into actions and tangible results. To decipher what happened in 1848-51, Marx took the role of an observer to find the key provisions of the most amazing trick of a magician's hand. So amazing that the same magician did not know how he had done, not even the same Louis Bonaparte knew how he had become emperor of France after three years of uncertainty beyond the conscious control of any human brain. The conventional reading of the text of Marx, Engels, following the prologue, only behind the drama has been a nightmare as the role deterministic economic class struggle. But, as suggested Kojin Karatani (2006), which Marx:

Found in the series of events was the opposite: The joints were developed independently of, or even contrary to, the economic class structure. What he sought to clarify was the "operations" independent of the events as such. (Karatani 2006, 144)

The immense merit of Marx is that he discovered the mechanism that enabled the convergence of search by the brain of the living, and the visible results of the revolutionary process. In this search, found living at events, ideas, stories and characters of the past a convenient outlet for the uncertainty to which they were subjected. But these stories and characters have not changed from that narrative and character-pieces hanging from the strings of memory in the absence of the social mechanism which allowed transforming into real results in real solutions for the overwhelming uncertainty that prevailed in France that time. In an earlier, Marx and Engels sensed the difference between the power of ideas per se and the power of ideas when they go beyond their limits and become real actions:

The ideas can never go beyond the old order, but only beyond the ideas of the old world order. Ideas can not do anything at all. To make ideas, men are required to exercise real power ... The French Revolution produced ideas which led beyond the ideas of the entire world order. (Marx and Engels 1845, Cap. VI 3, 1)

The return of the emperor, the one that exceeded the clutter, save the revolution and controlled the insurgent masses of Paris was there, very close, as personified by the real figure of Louis Bonaparte, Napoleon's nephew. The nephew, of course, was not the uncle, but was replaced in the imagination of the French. Especially in the political mind of the petty bourgeoisie who, bereft of their own party organizations or isolated in their homes and villages, frightened by a situation that threatened to boil over, as had happened a few decades before, was desperately seeking a way out. The past came to her rescue then through the providential figure nephew. He did so through a political mechanism seemingly innocuous: parliamentary democracy based on universal suffrage. The universal and democratic character of the mechanism made it more powerful in its effects.

Karatani discovers in the text of Marx the implications of universal suffrage and parliamentary democracy with the emergence of certain political arrangements, and seemingly inexplicable outcomes under conditions of uncertainty. Returning at the end of the quote above are what guide the operator behind the replacement of the uncle's nephew in the place of One:

And the agent of the operations officer was obviously the institution of representative system [Vertretung]. In the parliamentary system based on universal suffrage, the representative system is totally fictitious compared to Standeversammlung - an assembly of caste / profession of pre-industrial Europe, as Hans Kelsen raise it later. This means that there is no apodictic relationship between the representative and the represented in the institution of representative. Marx stressed the point here was that the acts and statements of the parties were independent of the actual classes. (Karatani, Idem, emphasis added)

Allowing the full metamorphosis into a revolutionary process nonentity emperor was the institution of representative democracy. There was then no trick. Only the implementation of a political mechanism endowed with the property to transfer the research done by the French in their brains to reality, replacing the Bonaparte who had closed the cycle of the French Revolution in 1799, the character closest possible: his nephew. While representative democracy is what explains the outcome of the process as a whole, the revival of the past in the living brain is what helps explain the language, drama, metaphors and narratives with which the French thought and acted in the events

that were happening before their eyes in those critical years. The overlap between representative democracy and the return of the past metaphorical produce the final outcome of the process: the coronation of Louis Bonaparte as Emperor.

It is essential to specify that we have no direct evidence regarding the operation of the brains of living in those three critical years, and in revolutionary processes in general. We have only indirect evidence in the form of speeches, story lines and actions that were documented by historians. All the textual evidence refers to the past: the characters, story lines, the final outcome. A past that is in the brain of the living and that is activated through discourse and metaphors. Through the mediation of language, Marx discovered the strong connection between past and present. Their approach was limited by having worked exclusively on the evidence discursive interventions from leaders of the revolutionary processes. However, unintentionally, Marx clears the new problem on paper the human brain in the collective political decisions.

If the approach to revolution does not depend on the facts, or images copied from the events, what characteristics distinguish the narratives of the revolutionary process? For Marx, the revolutionary narratives leave no recourse to dramas and narratives of the past. Hopefully, Marx announced that bonded with the past could only be overcome once the proletarian revolution exceeded, in real deployment, the constraints of bourgeois revolutions. Hence, in *The Eighteenth Brumaire of Louis Bonaparte*, Marx notes that the proletarian revolution can not know before finding his poetry on the progress of events. If his poetry can not come from the past, might just do the future, i.e. of the unknown. The proletarian revolution to be irreversible, having no reverse gear, they would find there his poetry and would leave "the dead bury their dead". (Marx 1852, 18) However, there is still no evidence of a revolution that has evaded the burden of the past and has reached the tipping point that would characterize the proletarian revolutions.

This article outlines a hypothesis about the interaction between the ideas of the dead and the living brain in revolutionary processes, and presents some evidence that metaphorical discourse and interaction in the context of the French revolution (1789-1999, 1848 - 51, 1870-71), Iran (1977-81) and Bolshevik (1917-1924). Its aim is to propose a heuristic for interpreting the relationships between tradition and revolution, meaning the possible heuristic models to investigate fundamental problems in the social sciences from new analytical tools. In this case, we use historical documents that are interpreted from the neural theory of metaphor and contemporary philosophy of language. We maintain that revolutions, such traditions are not facts, actions or events per se, but political representations relating forms of social change on a comparable scale. The originality of Marx was to warn deep objections to the revolutions of 1848 indirectly observing the central role of metaphorical language in revolutions.

1. The brain of the living

The human brain evolution occurs on a time scale greater than that associated with revolutionary changes. The neural circuits responsible for brain activity are trained in evolutionary processes that exceed the lifespan of a person. Under normal conditions, most of them perform a set of functions that are within the range of what is expected according to existing knowledge. All, however, can be transformed in response to external events or internal to the brain. The loss of parts of the brain due to accidents, for example, may lead to the creation of new circuits to replace those affected by injuries.

When there is a sequence of events that affect power relations in society, his protagonists react by taking actions that depend on the operation of their brains instinctively. The choice of appropriate action is not a rational process by individuals in computing power and deliberative enough to consider all alternatives and choose the one that maximize a utility function "revolutionary". Nor is the process of choosing the best options available in a repertoire of alternatives already known. Elections are conducted in a context of increasing uncertainty in which large groups of individuals take a certain course of action according to spontaneous processes of coordination made on the fly, without any prior knowledge, apparently, how to act in such situations.

Lakoff and Johnson (1999), have reminded us that cognitive science studying conceptual systems. Being a relatively new discipline, founded during the 1970's, has achieved central findings for the study of behavior. One of the most important that our thinking is unconscious not in the Freudian sense, but in the sense that their basic functions are inaccessible at the level of conscious rational operations. Consider for example all that is processed at a conscious level when they struck up a conversation. Look at a fraction of what we do second per second:

- We relate memories to access what we are told
- understand a sequence of sounds such as speech, dividing their distinctiveness as segments, identifying phonemes and regrouping in morphemes.
- We assign a structure to the statement according to a vast number of grammatical constructions of their native language
- Choose words and give them a meaning appropriate to the context.
- Give a pragmatic sense of the meaning of the phrase as a whole
- framing what is stated in terms relevant to the discussion
- Transforming relevant inferences about what is being discussed
- We build mental images when the topic is appropriate
- Filling gaps in the speech
- observe and interpret the body language of our partner

- anticipate where the conversation goes
- We plan to give answers (Lakoff / Johnson 1999, 10.11)

When we understand all that constitutes the cognitive unconscious, understanding the nature of the brain is enlarged considerably. Our conscious states are relatively small compared to the total set of conscious actions. Our experience surpasses the states of feeling or the mere experience of qualia (qualitative sense, e.g. color), in reality, the experience depends on multiple operators provided by various brain functions. Thus, brain areas that cause political behavior will be related to the metaphorical language and a vast field of collective emotions instinctive.

It is possible to detect a certain unconsciousness to act in situations similar to those appearing before him in the midst of revolutionary turmoil. There is knowledge in the strict sense of the word. This is not the existence of predictive processes in the brains of those involved in the revolutionary struggle. Even in the most fevered dream of utopian revolutionaries appeared the idea of a predictive science of revolution. What happens is the activation of certain neural circuits must respond suddenly, sometimes in a matter of seconds, the stimulation caused by the striking unusual cascade of events that are developing at this crucial time.

Of course, the idea is not to follow the operation of each individual brain in that crucial moment, but to understand the interaction of many individual brain-mediated social conversations, and stimulated by unusual events, which lead through the transfer of metaphors, images and symbols, the activation of common neural circuits. We are assuming the existence of a dimension in which the social-represented by the current social conversations, interacts with the neuronal activity of individual brain in the context of events fraught with uncertainty. Trying to understand what happens in the open dimension of new social situations in the context of revolutionary processes is a central aim of this article. At the same time we are moving in the following hypothesis: the actual actions chosen crowds in revolutionary processes are the result of spontaneous interaction between events, social conversations and neural circuits. With more specificity, are the results of activation, through the sudden occurrence of events and metaphors-existing neural circuit?

The weight of tradition would not be given than for big ideas that lead to the masses to action, but in the interaction between this metaphorical language and routines "always" embedded in the brains of the living. The imitation of the great heroes of the past, the repetition of his ideas, as tragedy or farce, or replacement for one another in the same roles, are the most visible result (which went down in history known) process interaction between metaphors and routines that we propose, but not the process itself. That process is what we try to outline here. Likewise, the continuity between the Old Regime and the changes in the administration of state induced by the French Revolution, Tocqueville proposed; result in long-term perspective, the actual processes of transformation occurring during the process revolutionary.

2. The political brain

To understand how the relationship has evolved between the brain and revolutions, we need to expand the explanatory context. More precisely, what is what activates the "brains of the living from the memory of the dead"? What kind of structures "significant" are moved so enduring in time? How relationships are produced that carry information from the brain to social conversation? What are the mechanisms that link the brain with the "language revolution"? Such questions include potential interactions between mind and language, or whatever it is, between the geography of the brain and revolutionary words.

To intervene in the revolutions, the brain and their perceptions need argumentation protocols. The protocols are the most important argument metaphors. Our brains think with metaphors are part essential to understanding collective action. George Lakoff has described this in terms of physical structures in the brain. In his view:

As neuroscientists say: "Neurons that are activated together stays together" To the extent that the same circuit is activated every day, the synapses of neurons in the circuit will become stronger until it forms a permanent circuit. This is called: "... neuronal recruitment". Recruitment is the process of strengthening the synapses along a path to create a path along which activation can flow strong enough. The more neurons are used, the more they "strengthen." The "surge" is a physical increase in the number of chemical receptors for the neurotransmitter at the synapse. This circuit "recruited" physically constitutes the metaphor. Therefore, metaphorical thinking is physical. (Lakoff 2008, 83-4)

Metaphors are critical in assessing the extent of the connections linking the brains of the living with the thought of the dead. These are what allow the construction of persuasive speeches. Metaphors are built with the historical narrative as formats for the preservation of memory. This is the case of the battles in Paris during the months before the assault of the Bastille, or the intricate power struggle waged from 1789, or the reconstruction of the 1848 revolution by Tocqueville in *L'Ancien Régime et la Révolution* (1856). Marx reconstructs events that also, by analogy Tocquevillian of revolution as a theater of actors with masks (Furet, 1992).

The concept of mental frameworks developed by Lakoff is crucial to understanding the past and the role of language in the form of metaphors and stories "in revolutionary processes. The stories are made up of frames that are the discursive structures that correspond to the brain structures that have emerged in time to activate the "memory of the dead." (Berry / Shanks / Henson, 1-7) According to Castells (2008), frames are

neural networks of association that can be accessed from the language through metaphorical connections. "Frame" means to activate specific neural networks. In the language of words in semantic fields are associated. These fields make up units of argument that activate brain networks. Communication metaphors frame selecting specific associations between language and experience from the brain maps. (Castells 2008, 142) Brain activity through continuous reinforcement of language received combines simple metaphors, or primary, creating complex metaphors. This process is done through what Lakoff calls "mapping" neuronal:

This type of circuit is called neural mapping. The standard notation for such metaphorical mapping is of the form: Affection is Warmth. This is a metaphorical name for the mapping, not the mapping itself. The name is written in English. The naming is mapping the neural character ... These simple metaphors can be combined, via neural connectivity to form complex metaphors. For example, a common metaphor of time in this culture (but not all) is that the future lies ahead and the past is back. The market prices of securities are seen as moving forward (from the past to the future), up (increase) or down (decreasing), which is a complex metaphor that combines More is up and the Future is before. Therefore, a sentence like "The market peaked in 1400" is an instance of neuronal connectivity of these two metaphors. (Lakoff 2008, 84)

What are decisive is not arbitrary structures frames. They are based on experience, and emerge from the social organization that defines the social roles in a culture, and then is incorporated into brain circuits (Linell 2007, 605-620).

A historical illustration may clarify this line of argument. Tocqueville found, after extensive work in the municipal archives, the framework of the judicial system, had been consolidated during the Ancient Régime the conditions appropriate to the context of the Revolution of 1789. The public format of judicial deliberation time ago contained a set of collective beliefs and widespread participation and conversation. In this structure:

Judicial habits had been formed in many respects, national habits. He had taken himself from the courts the idea that every case is subject to debate and any failure to appeal, the use of advertising and a love for shapes, things inimical to slavery: this is the only part of education of a free people that we have inherited the Old Regime. In large part, the administration had adopted the language and judicial practice. The king always felt obliged to justify their edicts and state their case before its conclusion, the board had long preceded agreements ado, the mayor notified the ordinances by the sheriff. In all administrative bodies of ancient origin, for example, the bodies of treasurers of France or of elected public affairs were discussed and decided prior allegation. All these habits and ways were barriers against arbitrary Prince (Tocqueville 1998, 199).

The passage is part of an analysis of the revolution counter to conventional readings. Interested in two aspects: (1) that the metaphorical context of Tocqueville's narrative emphasizes a continuity between what is considered "new" social forms kept by the belief in the Old Regime, and (2) the evidence of a process social exchange in which the discussion of judicial decisions and appointments made up of everyday culture. The deliberative features in the judicial sphere were shared widely throughout France and established group practices. This means not only that deliberation frames were part of the institutional experience, long before the alleged revolutionary changes in official discourse (Sonenscher 2009, 24-37), but was in these frameworks that the revolution of 1789-99 found the structures, ideas and discussion protocols that were part of their deployment.

Seen in this perspective, tradition has symbolic or social representations units equipped with persuasive force during certain cycles of time or within a time. What leads to the conclusion that the tradition provides central to revolutionary change. In Lakoff's terms, the process of "framing" relates a series of correspondences between the roles organized into narratives, narratives structured in frames, single frames combined into complex narratives, fields of argument linked to previous frameworks, and mapping frameworks the brain by the action of neural networks constructed from experience (developmental, personal, past and present).

Goofman Erwin (2009), for its part, has shown that human communication is not limited to the domain closely verbal or written language. The nonverbal language, symbolic gestures or body, make up a complex framework that leads to the recognition of subtle strategies and mechanisms of collective culture. Revolutions are also the result of stereotypes shared by rumors and information. These visual and auditory manifestations are the focus of mass communication technologies. It is actually metaphorical active conversion of the living brains which can extend in time "the memory of the dead." A majority of communications are built based on metaphors, because this is the most effective way to access the brain. The maxim of Marx indirectly points to the question of how to activate appropriate brain networks that stimulate the process of social conversation.

By using the term political brain, we are asserting a dominant metaphor. This is not the existence of a brain with a political nature. Rather affirm that revolutions are part of a generalized cognitive experience, and activated by specific linguistic relations. The social fabric of the conversation during the revolution is based on metaphorical relationships, symbols, rumors and gestural expressions that make up a set of decisions that are made under uncertainty. Policy actions have a corresponding expression framework of interpreting the world. What interest we are the study and the genesis of the revolutionary changes taking as reference language. The brain thus understands political particularities that exceed the conventional interpretation of political action. Revolutions have causal links that reach the brain neuronal activation, in the same way

that a defense based on tradition, as is the case of Tocqueville, Chateaubriand, or Burke, regarding the influence of the monarchy.

3. The metaphorical brain

In his monumental work *Philosophy in the Flesh, the Embodied Mind and Its Challenge to Western Thought*, Lakoff and Johnson (1999), underpin how philosophical systems are based on a relatively small set of metaphors. The specific aim in our case is to extend their results to the political revolutions. The hypothesis about the role of metaphors is that their constant use for generations inherited the speed can make them resistant to change. But the activation and diffusion of their properties, together with unpublished adjustments in certain linguistic systems, integrated developments can generate a huge amount of inferences. As a result, revolutions are located primarily in the brain metaphor, i.e., revolutions are the result of dominant metaphors that trigger the change of political action.

We tend to see the world through metaphorical systems, neural build simulations that can be adjusted to such systems, the facts and values calls for a time as true depends on their adaptation to the corresponding metaphorical. Those values that do not conform to it, simply become invisible or disappear. This is particularly critical with regard to the relationship between tradition and revolution. In each case, revolutionary thought, or the framework of tradition, is defined by a root metaphor and way of thinking that is suited for. As above, for the design of Tocqueville (1850), Marx (1852); Furet (1969), Mayer (1981) and Schama (1989), the French Revolution (1787/1791, 1792/1799 or 1848/1851) evolved through the layers of metaphors incorporated into the French mentality. Revolutions do not just happen but are activated by the effects of social conversation and sociability dominant.

Neural theory of language also allows us to understand why metaphors are so powerful in revolutions. Consider, first, words. Each word is defined through a circuit that links one element in a frame - a semantic function. As each framing is structured based on a circuit of the Gestalt, the activation-by-effects of an element is the activation of the entire frame. Moreover, the broader metaphorical framework is one that can contain other frames and their images: the framework that can enable social meanings on events. Each of these frames, from a cognitive perspective, is structured on the basis of conceptual metaphors. All these structures can be mobilized in a revolutionary context by activating the meaning of a particular word.

Furthermore, in the lexicon of revolutions can be the domain of a metaphor. In this case, one word can turn the metaphorical process. In context all these structures arise for causal inferences symbols, representations and ideologies. The constellation associated with metaphors words and actions have the following cycle:

- The word designates as a structural element within the source domain of metaphor
- at issue is in the target domain of metaphor

Thus the phrase: "Men of the first revolution had risen in the minds, actions and words of the living" (Tocqueville) under temporary active revolutionary, argumentative technique corresponds to a sequence comparison between two different times that are unified by recourse to tradition. Moreover, the word "resurrected", under its metaphorical load-acquires the characteristics of a nexus of succession compared in a time frame of the present tense. In our neural systems metaphor of the resurrection is related to the idea of perpetual cycles, linked to the permanence of the body, i.e., the metaphor is a physical circuit arranged to be activated by language. The grammar also plays an important role in activating a metaphor. The interpretation of this metaphor source domain suggested as the first revolutionary feelings of the day (dawn) and the object of the preposition (freedom) from the target domain.

These issues are compelling in the context of a neural theory of metaphor. Formatting elements (words and grammatical categories) relate neural elements of our conceptual system; the power of metaphor is potentially connected to elements of the scheme related to the words or grammatical categories.

Deconstructive look at the strength of the February Revolution of 1905 in the following interpretation that Russian soldiers gave orders from his superiors: "Health is recognizing the pads created by the Tsar, the Tsar Father is gone, and then there is no need or shoulder pads or greeting". The line of argument makes no mention of disobedience as a theme, but contains three words that evoke a frame of the source domain in a metaphor. The greeting is in the source domain of metaphor, the pads are the symbolic means of the authority conferred on the Tsar, "Father Tsar no longer exists" a metonymy for identifying forms of power. And the inference communicates a devastating irony. In this case, each word activates the structural element in the framework of disobey the order to wear shoulder pads. The metaphor is for the revolutionary disobedience. This is reinforced by the fact that the phrase has no direct literal meaning, ie words are used as objects of the sensible world. But the meaning of the source domain does relevant work in the construction of the metaphor of a symbol ordained by the Old Regime. Another illustration of this stanza sung by the Russian people to report sexual corruption in the court, and served as a metaphor for the diseased condition of the Romanov regime. The Czarina, like Marie Antoinette, was accused of cheating on her husband

In the domain of the Czar, our little dark flower
Has opened its petals of pleasure.

In the tower of the Czar, our little Alejandra
Has been plucked by every guard

Here the mixture of metaphor creates an appropriate environment for the feelings of moral condemnation. Activation of sexual imagery through metaphor whose source domain is the belly reinforces the interpretation of the first lines of text. This uses of metaphorical sense activation in the neural model.

As we have noted, the neural theory of metaphor is important in the context of revolutionary language. We know that the metaphor is not in words but in ideas. What is evident in cases of linguistic ambiguity where the same words can evoke different readings On February 24, 1848, the chef de Tocqueville, he says through tears the following statement: "The government is killing the poor people." The cadence of the words in this case has a key role. The "government" is not an administrative unit, but compared to the action, a person whose conduct is judged as "criminal." The action evokes an image of unequal, and helps to extend the metaphor to the viewer the unequal conditions between the victim and the offender, "poor people." In a neuronal perspective, the metaphor has enabled the political significance of the event. Obviously, the metaphor is understandable only in an atmosphere charged by the political language. In the *Eighteenth Brumaire of Louis Bonaparte* Marx compares the historical evolution of the revolutions of the English people, from Cromwell to representative government, the doctrine of John Locke, with the narrative forms of the French Revolution of 1848/1851:

In these revolutions the evocation of the dead was aimed at glorifying the new struggles and struggles not to parody old theory exaggerate the struggles of the day and almost back in their implementation, to rediscover the spirit of the revolution and not follow the ghost . 1848 to 1851 there was only the ghost of the great revolution, from Marrast, Republican with yellow gloves, to the adventurer who hides his vulgar and disgusting business under the bronze mask of Napoleon. An entire nation that believes it has accelerated its forward motion is suddenly transported to a bygone era.

The neuronal theory can explain this classic passage. The memory of those killed or released condition of the living brain. In the first case, the source domain of metaphor helps to show a movement of time marching "forward" in the second case, time is seen as a return "back" (past). In the moving time metaphor is staged as a play with characters they represent, as farce, the Revolution of 1848.

4. The role of social conversation

Metaphors and stories are the product of social conversations occurred in multimodal networks, where thousands, sometimes hundreds of thousands or even millions of individuals exchanged metaphors, opinions, symbols, interpretations and narratives about events that affect the state of relations power. Multimodal networks because individuals are bound by them interact through different types and relationships can be divided into units of varying sizes (organizations, groups, neighborhoods, clubs, lounges, parties, families). There are networks of relationships characterized by unique and always active. Nor are networks in which many individuals decide on two possible actions. Are networks that are activated only by the occurrence of events that affect directly or indirectly the relations of power, when such events occur, the social conversation is activated, inducing a process of competition between multiple concepts (metaphors, narratives, symbols) that emerge from different nuclei of the implemented networks. Metaphors and narratives are transformed when passing through multiple paths and relationships that make the multimodal network is happening in social conversation. In the process of competition and transformation, the actions taken by different coalitions become new effective links between individuals who observe process and seek their potential effects metaphors and stories to understand what is happening and act accordingly.

As members of the basic units are connected through many relationships the same event is transformed through the different relationships in various units to return in time intervals become smaller and more close to each other, the first units in which he was treated. With the acceleration of the events of the revolution itself, the total length of the conversation is done in fractions of time dwindling, to reach very high degrees of coordination. The content of the concept is stabilized in a common mental framework after several rounds of interaction, depending on the size of the units in which the population was spread and density of the set of relationships linking them.

The convergence of concepts is accelerated by real events to which they are tested as engines of revolutionary action. At such times, the use of metaphors becomes more stable by closing, through the action, the process described in the preceding paragraph. The real action become temporary links that reinforce the use of neural circuits involved and the role of metaphors in their activation. The description by Orlando Figes of the first blood spilled in the course of the Russian revolution, in Bloody Sunday, occurred on January 9, 1905, to see the role of the outcome of collective action on the brain of the living and decisive effect on the action to take in the future revolution. On that day 150,000 people marched under the leadership of Father Gapon towards the Winter Palace in Petrograd (now St. Petersburg), to demand better working conditions for workers. The march was peaceful in nature and aimed to present to the Czar an "Application Humble and Loyal" (Figes 1996, 173). Behind the march was the trust in a benevolent czar, and the action of Zubatov, head of the secret police in Moscow, which

had launched the brilliant idea of organizing and controlling the movements of protest against the Czar. Twelve thousand men of military forces were waiting for the protesters and fired into the crowd causing hundreds of deaths and injuries.

The high point of the Russian Revolution was the slaughter, but the reaction of the crowd before her. Instead of accepting defeat and flee, as was expected, rage overcame the fear and the crowds sought other routes to the Winter Palace, destroying in its wake shops, displays and property. The turning point in which rabies has emerged to lead the action is narrated by Figes through the testimony of a Bolshevik present in the crowd: I watched the faces around me, and I detected no panic or fear. No, the expressions of reverence, almost of worship, were replaced by hostility and even hatred.

I saw the looks of hatred and vengeance, almost all faces, old and young, men and women. The real revolution was born and was born in the same breast, in the bowels of the people. (Figs 1996, 178-9)

What characterizes the turning point of the Russian Revolution his birth, as stated by the Bolshevik cited by Figes, is not a sudden discovery by the Russian people, ideas Bolshevik or anarchist or socialist or democratic, but the massive activation of rabies through real action. Within minutes, the marchers in the hope of being heard by a benevolent czar, the father of the Russian people became his enemies. The rifle shots, instead of destroying the rebellion, as it always had in the past, revealed unknown forces. "There is no God. No Czar" (op. cit., 177), have you heard that the father Gapon when up from the ground and saw the carnage around him. The sudden disappearance of God and the Tsar were the metaphors that condense the bloody collapse of the world where the poor had lived for centuries Petrograd. Language setting out what had happened in their brains when musketry ended hopes of a better and fairer life under the watchful eye of the Czar. The extraordinary thing is currently in the way hundreds of years of history are confronted, in minutes of life and death, by an overwhelming certainty that comes from the action. That confrontation unusual happened spontaneously in the brains of thousands of protesters, forever changing the repertoire of reactions from the crowds at the strength of the regime. The mob violence that would later appear in full force most likely originated in the special twist the perception that the crowds were the little father tsar and his own possibilities.

In his study of the French Revolution, François Furet found a formula that might help understand what happened on 9 January 1905 in Petrograd and their subsequent impact not only on the Russian Revolution, but on most of the processes revolutionaries who came after in the world. Their concept of revolution as a great summary of the past sees a field of analysis that is just dawning. A field that requires the study of the emotional, ideological and revolutionary mental processes:

I begin with the assumption that the revolutionary events were, by their very nature, highly charged event in emotional terms, and that ideology played an important role in masking the actual processes that were triggered. Every revolution is a disorder and a mental breakdown, in fact, is a tremendous overview of the past. (Furet, 117, our emphasis)

Centuries of tsarist rule were summarized in the brains of survivors in the minutes that erased the musketry of a blow, to God and Tsar.

However, the more dense the set of relations, the lower the time intervals that separate discussions are taking place in different units, the greater the intensity of the actions arising from the conversation and the greater the likelihood of forming a stable mindset. The key process is the multiplicity of paths that lead to the same conversation transformed. This is not a simple return on the same path, but the back, again and again, the same conversation through different routes in the middle of the urgency of revolutionary action. In this process both paths traveled as many filters impose trade carried the words, metaphors and opinions circulating.

The paths for the formation of frames of mind are the general orientation of the model. The words, opinions and stories try to interpret events and condensed, via actions in metaphors that activate neuronal circuits linking word and action through its permanent reinforcement. Form a chain from the events to language in social conversation, where it is filtered, and become metaphors activates certain neural circuits. The repetition of the use of these circuits is reinforced time and again through real actions that return to the brains of participants through the senses, language and media. In schematic terms the chain recursively could be represented as follows: Event-talk-activation of neural circuits-real-events action. At the neuronal level could be conjectured the activation of those circuits that are related to attitudes of fear, uncertainty and the unknown.

In the language of Père Duchesne, one of the most widely read publications which best reflected the language of revolution in its most radical, can be detected the interaction between the Great Fear, and the deliberate promotion of more radical action. The biggest risk, embodied in the image of old gentlemen armed to the teeth who came to remove all conquered, could only be compensated through more radical action: the blotting of the earth to the plotters and executors evil.

Similarly, the Parisian who read *La Lanterne*, or any of the hundred of periodicals available in the Paris Commune of 1870-71 (Horne 1965), went to see plays or vaudeville, participated in discussions on political issues the many clubs in the city, or at meetings of the revolutionary sections, and never ceased to engage in street trading

on the events of each day, awaiting the arrival of the enemy troops were immersed in the same general conversation, which involved, then, to all of Paris.

The network formed by the readers of *La Lanterne*, whether or not they have a direct relationship between them, interacted, in cabarets, meetings, street cliques, workplaces, coffes, National Guard battalions, with others who had not read it, but were willing to talk about what was happening in the city, which at the moment condensed the whole of France and was almost the entire world for its inhabitants. Note that these two networks did not require direct links to be connected: those who went to nightclubs, bars and coffes, you may not have another link to their chance encounter at these sites in the same way that newspaper readers had no other link that reading the same publication, or common membership in a National Guard battalion, or a section of the Commune.

When the two systems interact, phrases, images and, in general, the material from reading the newspaper went to the conversations that occur in places of assembly, or in any conversation, reading and turning multiplying the interaction between readers and non readers. The same kind of relationship could be extended to other social networks, making up for short periods of time, multimodal networks, composed of many relationships, in which large amounts of information were exchanged and the competition led to the predominance of certain metaphors and lines narratives.

The assumptions on social conversations also set a certain image of revolutionary change related to the imitation of behaviors neighbors. In most cases it is possible to say that social influence is not just the role of someone in particular, but of factors accumulated a critical mass of individuals whose influence on others becomes very important. In experimental models of Watts / Salganik / Doods (2006) The role of social influence tends to overwhelm one's ability to understand the critical mass, which usually does not equal the number of people directly affected by public opinion. Other people further away from the immediate environment where the network can also become involved in the critical mass. Although in most cases this phenomenon occurs infrequently.

Usually the effects caused by the metaphorical flows tend to be narrated later by arguments that differ from what were your initial conditions. In the subsequent story, many events and actions are left to drift, and individual aspects appear as mere accidents in the entire official story. Those cases recorded as a heroic feat of individual efforts and achievements have been actually the result of collective actions organized by various accepted social beliefs. The relationship between an individual act and interact to generate collective action in some cases balances, or other unpublished motivating behavior. The truth is that information flows are counted as one of the most critical components in the dynamics of public opinion formation. The rationale, as well as information about or never "is complete and consistent (Estrada, 2008).

This widespread social conversation would not be possible without the profound changes in Paris and its transformation into a city that could most diverse mix of classes, groups, cultures, opinions and representations. The city had become a theater and the theater determined to turn the voices, rhythms, the anguish of the conversation. The causality was in both directions. The transformation of Paris in a large city makes revolution possible, but it is the revolution that made possible the big city. And the threat of revolution and its turbulent crowds making change to Paris in the nineteenth century. The interactions between city and revolution and between the conversation and the revolution in Paris reached the highest point in recorded history.

Step through different paths of the same material processing, allowed the emergence of shortest paths, both in the brains of the participants, and in relations between individuals. The scientific basis for these processes is the work of Narayanan (1999), who showed how the simultaneous actions in the experience become simultaneous activation of different brain regions. Extensive activation form neural circuits that connect brain regions. Connections that remain make up the primary metaphors that determine much of our business concept and our relationship with the world in general. As we have already risen above, Lakoff (2008) from the work of Narayanan and his own research on the motor base of metaphors [Gallese and Lakoff 2005, Lakoff and Johnson 1980], has extended the role of frameworks mental to the field of politics. In this scientific context, the conversations before and concurrent with an outbreak of revolution are experiences massive activation of brain regions that produce different frames of mind that can lead to revolutionary action. We study how the conversation relates revolutionary metaphors of fundamental movement, ie, how it relates to the revolutionary experience and what kind of experience would privilege in its activation.

What are the states that lead to the activation of certain primary metaphors? In revolutions, would it be perceived by state changes in the brains of the participants? Lakoff (2008, 261) found that the human brain interprets the states as places. How to interpret the imminent transition from one state to another? Or the predictable destruction of a far has been stable? How to interpret, for example, the passage of the king Almighty King prisoner in his own palace? Or the king the king prisoner executed in the guillotine, as the sudden collapse of a world that no one expected it to collapse? Here the specific sequence of events contributed to understand the sudden and radical changes of state of the revolution. The failed attempt to escape the King and his family, and his subsequent discovery and arrest at Varennes, resulted in a total change in the way that revolutionaries saw the figure of the King and his participation in the revolutionary process. The dark expectations of a real flight to launch European powers against revolutionary France had become suddenly, in fact. The acceleration of the events was immediate.

Our hypothesis is that during the revolutionary processes metaphors dominant master narratives are combined with others to form more complex frameworks that dominate the course of action. In the French Revolution led to the Great Fear of terror as a key strategy to overcome the uncertainty and keep power in the midst of revolutionary turmoil. But terror alone could not be a guide for action, required constant reference to equality as a great revolutionary metaphor as final line of demarcation between the revolutionaries and those who were not. The combination of equality and terror, in the context of that process moving, stabilizing action of the revolutionaries and said its ideological justification, while the required legitimacy came from the open competition process between metaphors and revolutionary strategies.

In the French Revolution, the radicalization took the form of constant mobilization of armed and unarmed crowds, attacking public buildings, palaces invaded and came to the rooms of the royal family at Versailles demanding bread, facing regular troops confronted are humiliating to the National Assembly. Each new movement had to overcome in the previous radicalism, and took his metaphors and slogans of the violent competition for control discourse on the imagination of the French revolution had unleashed. The word and the idea of "equality are crucial in the discourses associated with the mobilization of September 5, 1793, as seen in the words of a Jacobin delegation to the Convention:

It's time to hang over all the heads of equal strength. Time to scare all the conspirators. Try, therefore, lawmakers put the Terror in the agenda. Enter into revolution and counter-revolution everywhere is being prepared by our enemies. The blade of the law should shine on all the blame. (Andress, 214)

In this context of revolutionary action, equality is not an abstract concept or a philosophical idea independently, is a way to more radical action. Equality existed only in the exercise of Terror and the Terror was merely to condense the force of equality. Furet understood well the impact of the eschatology of equality and competition for control of the masses in motion is the path taken by the French Revolution

This huge cultural emancipation, meaning the company could hardly keep under control, thereafter triggered a competition for power through a growing egalitarian rhetoric. Internalized by the masses, or at least certain sections of them, and ever more ruthless in so far as the village was the only reference mark, indeed the only source of legitimacy, the revolutionary ideology had become the arena for excellence the struggle for power between groups. Through this ideology became the dialectic of successive divisions in the leadership during the years 1789-99, as the language that ensured the continuity of new elites. It was in the name of equality that Robespierre and Brissot Barnave sent to the guillotine, and yet was the principle of equality by the Abbe Sieyès remained faithful, despite his apparent loss of faith, between the spring of 1789 and 18 Brumaire 1799. (Furet 1981, 130)

The revolution had to be revolutionized from within, ie, overcome by itself, so it could survive its enemies. The increasing radicalization could only be possible if the revolution did not stop constantly changing, which meant traveling forward in power and in the liquidation of his enemies, real or imagined. Therefore, the term equality is not about economic or political equality, but equality before the strong-arm of the revolution, everyone who is out of the revolution, or act as your enemy, should disappear. And it was also the subjugation of others, of those who were not with the revolution.

As the case of Grace Dalrymple Elliot during the events that shook France and Europe since 1789. Mrs. Elliott's testimony about details of what happened in Paris during the years of the Great Revolution is memorable. In particular, his description of the conditions of the royal family and his failed attempt to escape captivity in 1791:

The royal family, after all, was arrested in Varen, violently, and brought back to Paris in the most barbarous. I saw on the Champs Elysees, while being driven from the mob who insulted them, I find it impossible to describe these scenes. Nobody seemed to want to curb the insolence of the mob and his evil, the crowd poured on the wagon where the royal family was driven insults and throwing all kinds of objects. The guard who was keeping those little carts contained the crowd, the king was bound hand and foot, ignominiously. The mass spat, vomited most indecent words. The queen, ill and tired after several days of anxiety after the flight of Paris, seemed about to die, was probably one of the most tragic days I have been given life. A day that would be recorded as an example of the tragedy with which France and Europe was shaken in the wake of the bloody revolution (Elliot, 2001)

The dynamics of these processes renew their strength through their own movement. The intensity of action depends on the convergence towards certain frames of mind and stabilization of the latter depends in turn on the intensity of the actions of the new information they produce and how to strengthen, or transform, the mental frameworks through the conversation has not stopped at any time.

5. Activation through uncertainty: The great fear

Uncertainty is a crucial condition of any revolutionary process. It is characterized by a sudden explosion of multiple alternatives and the inability to predict the consequences of one's actions and the course of events in general. In extreme conditions, uncertainty

can become collective and widespread fear³. Between uncertainty and the threat of total disaster should prevail then the second process that the outcome of the first. As a social and psychological construction, the Great Fear involves two elements: a large network in full swing and many brains faced with the search for solutions to the prevailing uncertainty. She raises a critical challenge: Where brains seek resources to confront it? We conjecture that the tradition and the basic instincts are part of those resources. Consider the French summer Great Fear of 1789 and its subsequent consequences.

In the days following the storming of the Bastille, all of France—from the most remote areas to central Paris was invaded by a wave of collective fear that changed in a few days the mood, perception and actions of the French. The most widespread story that dusty riders mounted on horses to burst, they came to villages, towns and fields and announced that in another place, not too far away, mobs of armed men were killing men, women and children and destroying their properties. They called brigands (robbers, mugger) and said they were going in droves well armed, were sent by the aristocracy and the Lords defeated by the revolution. The story was repeated, simultaneously, all over France, to grow and diversify in its storytelling and consequences. Soon the whole country was facing the most terrible fear of recorded history.

It is clear that the uncertainty generated by the taking of the Bastille and the Declaration of Independence of the Convention had created a climate in which not only knew what would happen, but everyone wanted to guess what might happen next of the terrible acts committed, but did not know how. The blood shed in the Bastille, the subsequent popular celebration, and joy shared by the crowd and members of the convention, put everyone in a new situation without any possibility to step back and without any historical reference to go to. What was known was not reassuring: for acts much smaller, with fewer implications, and without the terrible real and symbolic violence involved, the rebels had paid before your head or your property. This terrible act that included the lynching of the governor of the Bastille and the head of the troops who guard them, could only be answered by the most terrible violence of the privileged. As the agent of vengeance was not yet a definite name, nor could be ascribed to a party or political persuasion, or even could be awarded to the monarchy, so far above suspicion-filled social imagination with its absence Figure fearful of robbers sent by the Lords in the process of revenge.

The Great Fear, then, was a temporary solution and collective uncertainty that dominated the social life at that time. And it was because it does not lead to inaction or paralysis, led to the beginning of preparing citizens for war against an enemy that was just beginning to be built. If you previously did not know what to do now at least had an

³ Not all uncertainty leads, of course, a great collective fear. Uncertainty can lead to terror, to representative democracy, the collective fear, to the dictatorship. Uncertainty, even, might not extend to the whole society and not have any real effect on the evolution of power relations.

idea of the fearsome enemy that lurked and exceptional measures they should take if they wanted to survive as lethal threats. Since then, the figure of the enemy began to vary, taking different incarnations, ranging between reality and paranoia, in oscillations with consequences that are difficult to discern amid the prevailing uncertainty.

The fear was dominated and stabilized through the use of metaphors and discourses that were real and amenable to control through action. This process included the production of a widespread anger against the generators of the terrible threat hanging over the citizens, and its simultaneous conversion into real characters. It was not enough with the terrible image of the brigands touring the countryside and the French cities, is required in addition to specific names, with understandable motivations. Once stabilized, the fear, anger came on the scene, speeding real action. What happened in France: the Great Fear dispelled, came the angry response to actual and potential conspiracies of the enemies of the revolution. That anger was surrounded by a language, a few speeches and some metaphors that led, through social and neural circuits, to action. Many publications, writers, playwrights, artists, political leaders and agitators began to occupy the space in which every day new plots were discovered and identified new enemies and dangers. The elusive robbers of the early days were replaced by characters who ranged between the real and imaginary: aristocrats, venal politicians, courtesans, speculators and counterfeiters, leading moderate centrists.

This production narrative, discursive and visual passed daily social conversation, in multiple ways, and was reinforced by the actions taking place, also on a daily basis in Paris and the provinces. To the extent that the social conversation fueled the production of metaphors and narratives to counter the threat, political competition between different factions fighting for control of the revolutionary process took the form of intense competition for people's imagination in motion . It was a competition for the adoption of metaphors and radical speeches: those that could lead to tougher action since sustaining the dynamism and vitality of the revolutionary process.

Beyond their political differences, social origin or of their greater or lesser distance from the monarchy, Girondins, Jacobins and sans-culottes enragés shared the same goal: to gain control of the political process by controlling the metaphors and speeches that moved the action to the people of Paris and the provinces. The violent discursive competition between Père Duchesne, Jacques Hébert, *Le publiciste révolution Française par l'ombre de Marat*, Jacques Roux, *L'ami de Peuple*, Jean-Paul Marat, *Le Vieux Cordelier*, Camille Desmoulins, the official speeches of Robespierre, Saint-Just, Danton, Brissot, and the hundreds of publications that circulate daily through the streets of Paris and the provinces, give a reasonable idea of the climate of heightened agitation and production of ideas, metaphors and narratives prevailing at that time in France. Behind the metaphorical and narrative competence was always the great fear and beyond it, as the terrifying consequence, and its ultimate horizon, was the struggle for

survival.

According to the story of Charles Kurzman (2003) the great fear was a key element in the Iranian revolution. I was in a sense paradoxical: despite the great fear, and because of it, the Iranians fought the Shah's regime, with greater determination and with the additional clarity of impending death. It was the greatest certainty of victory, or a greater margin of political expediency, which propelled the growing stock that led to the triumph of the Iranian revolution. There were two deep reasons: the great fear (of the CIA, the military force of a corrupt and inhuman regime) and rage against injustice and inhumanity of the key pro-Western regime of Shah.

In November 1978, after the slaughter of Zhalih square in Tehran, and the prospect of a major confrontation with the regime's forces during the holy month of Muharran, farmers living near Tabriz, told a Western anthropologist and receiving what they felt when they marched against the forces of the regime: "letting go", "abandoning life" were the expressions used (Kurzman 1996, 161). This certainty finalist and dying meant a radical position: the decision to sacrifice their lives to overthrow a regime inhuman and unjust. This kind of perception can only come from deep beliefs, those that do not require a lot of rational deliberation, or the comparison of costs and benefits.

Incidentally, this kind of perception, that combines fear with this decision more radical and agonist sense of existence, could also be seen in the letters left by some of the participants January Bloody Sunday 1905, in Petrograd. Here are some sentences from the letter that one of them sends Niusha, his wife, before marching towards the Winter Palace:

If no return and kill me, Niusha, do not cry ... Raise Vaniura and tell him I died as a martyr for the people's freedom and happiness. I die, if that were the case, our happiness too. (Figs 1996, 173)

Kurzman quotes the anthropologist himself to give a general idea of the emotional climate, and the deepest insights of farmers in Tabriz:

The farmers told me their horror, anger and frustration at hearing about these events, while his decision not to rest until the Shah and the government had carried out such inhumane things to their compatriots cease to exist. (Kurzman, Ibid)

Before leaving, in December 1978, when tension was at its highest point and the confrontation could lead to even larger massacres, the voice of a religious leader raised the implications of march and confront the regime's military forces: Perhaps we killed tomorrow. Face revolvers, rifles and tanks. This should not be afraid to come. (Kurzman)

Implying not only the vast presence of fear, but the precise knowledge of what each one was betting on the part of popular demonstrations against the regime. Contrary to conventional wisdom, that did not lead to inaction. And that's the point to be explained. The Shah and his advisers, according to conventional expectations "right" bet on the deterrent power of fear. Never thought that fear could have the opposite effect. This unexpected reaction from the Iranians can not be explained by pure rational deliberation based on the number of participants in demonstrations against the regime. Require an additional explanatory factor. An item that may not be at the level of consciousness or rational decisions, but that could reflect changes in mental states and activation of neural circuits responsible for critical decisions. In Iran, the activation of specific neural circuits occurred in a context in which vast resources social-networks, traditions, organizations, were mobilized to confront the common enemy.

In December 1978 the Iranians feared the arrival of thousands of CIA agents in the country to destroy the revolution. Although it is not clear where or how the rumor spread, which is beyond dispute is the emergence of a process of collective fear similar to the Great Fear of the first months of the French Revolution of 1789. The CIA took the place occupied by the riders, highway robbers and vagabonds who were to farms, towns and villages to kill men, women and children, stealing and destroying their properties in the minds of the French in these days of uncertainty. Moreover, the great fear of an aristocratic conspiracy, in alliance with foreign imperial powers, had its counterpart in the Shah's alliance with the imperial power of the United States. The CIA did nothing to occupy their rightful place in spontaneous narrative was in full swing.

The importance of fear appears again in the effects generated by a tape recorded by the opposition. In it, a voice purported to be that of Sha gave formal orders to his generals to fire on crowds in the streets. The reaction of the Iranians was to confirm the fear they felt and strengthen their anger and contempt for a system capable of acting in this way. Why the great fear did not lead to inaction and submission?

On September 4, Tehran, journalists reported the emergence of a state of general euphoria. The most popular slogan was concerned the fate and death of the Shah: "The Shah is finished." (Kurzman, 162) Here the name of the Shah replaced the name of the Czar in the sentences handed down after Bloody Sunday, 1905: "There Zar no".

The activation circuit basic moral solidarity had a profound social base in the growing participation of Iranian popular mobilization and the decision not to be perceived as contrary to the spirit of rebellion predominates. More than a process of contagion, it was an expansion of collective activity and its potential, resulted in the perception that the

nascent rebel community was forming itself in the course of events. Below that was the activation process through various means and channels, and organizations with centuries of existence in the Iranian community, such as bazaars and the ulama, and discussions associated with them. Again you can see the work of the revolution as a "tremendous summary of the past" means both the bazaars, as the ulama, are social institutions with centuries of existence, deeply linked to culture and memory of Iranians.

In this context, the revolution became stronger collective choice, the only one, in fact, in many years of despotism. It was the convergence between the new community, collective action and neuronal circuits related to justice, solidarity and honor what triggered the outbreak of revolutionary activity, almost suicidal that characterized the Iranian revolution. The perception of opportunities by the rebels, who Kurzman suggests, could be just the result of rational deliberation of millions of Iranians in the middle of the situation more uncertain of their lives. To view and use this opportunity also required the assistance of their deepest traditions of the Iranians, resources that could guide in times of maximum uncertainty, beyond any ideological affiliation. By resorting to these deeper layers of neural circuits Iranians found a guide in the midst of uncertainty and fear more terrible, hence the failure of the carrot and stick policy of the Shah: the club, instead of terrorizing Iranians took them to a higher plane of choice, and the carrot was interpreted as a sign of weakness or, at best, banal as an offer that fell short of what the moment demanded.

6. The tradition of revolution

The revolution is only possible from what is recorded deeper in the brains of its protagonists. The only truly new appears in the course of the revolutionary process itself, when its characters discover, to interact with each other, unprecedented consequences of their actions. So there is a lag between the actions of the revolution and the ideas and the language behind them. Between what they do and what they believe the revolutionaries. And above all between what they do and what they believe the masses involved in the revolutionary struggle. This difference can be attributed to mental frameworks activated in the brains of the participants. It is the promise of new, or unknown, leading to revolutionary action. Is the activation of existing neuronal pathways through metaphors of this. And is the production of new metaphors through the implementation of social conversation, in turn result in the activation of social networks in the resting state.

In the Iranian revolution is the dual presence, as an organization and as a producer of metaphors of the Muslim religion that gave an ideological vehicle and a common bond to different types of social resistance generated by the actions of the Shah. Was resistance to the new and the foreign "to the inauthentic and offensive that began the

vast coalition depose the Shah. Verbalized resistance, in principle, from the values of radical Islam in its deployment, called the action of other perspectives and traditional forces to stop the aggressive advance of the inauthentic and abroad, as was the case in the bazaars (the ancient associations of merchants and craftsmen of the great cities of Iran). Was the interconnection between social organizations very old (the bazaar) and new (students, intellectuals), with religious institutions and networks that made it possible to articulate in both verbal resistance as ideologically. Say the words and metaphors embodied resistance to the regime meant to have found support compatible with her beliefs. Or better: the articulation of the words themselves of that resistance was possible because they found the mental frameworks of the Islamic religion and the most immediate way to do so pure. The rejection of the false, inauthentic, to which imitated abroad and the foreign and violated tradition and Islam was behind the backlash that was brewing against the reforms of the Shah.

But the integration of active resistance to the Shah's regime and the Muslim religious culture was neither direct nor easy. It was actually a complex process of active transformation, and even destruction of the Shiite religious networks by cliques of radical activists, linked to the leadership of Ayatollah Khomeini. Charles Kurzman [1993, 2005] studied in detail the process by which radical activists transformed the traditional religious networks revolutionary network. It was a violent process that included terrorist activities, and an ongoing campaign of intimidation and questioning traditional religious leaders. It was therefore a natural overlap nor inevitable. It was an event contingent upon the actions of radical activists cores and violent actions of the regime. The combination of these two sequences of events allowed a change in the perception of Iranians, and the activation of circuits related to justice, humanity, cooperation and solidarity.

The role of tradition is twofold: first, is resistance from many sectors of Iranian society against pro-Western reforms of the Shah and the other is the impact of the oldest of all social conversations-that Muslim faithful united by religious institutions (ulama, madrassas) and secular (bazaars) of centuries. The two come together, through subtle ties include, for example, specialists in recruiting people for religious processions, in the task of activating a vast network that is beyond the scope of individual networks of madrassas (religious training schools) and ulama, or bazaars, transformed during the revolutionary process and link it in your deployment, resistance from other sectors - organized labor, unorganized workers and Marxist radicals, for which the confrontation with the Shah did not pass by religious faith

In the French Revolution the roads and the contents are different, but the role of tradition is similar. In addition to the tax resistance and the power of feudal lords, is the fierce opposition to the advancement of industrial and financial capitalism that generates the first signs of dissent against the regime and that conformed classes. Not finding what determines the utopian radical dynamics. Is the resistance to the worst consequences of the new leading to more radical action and the final discovery of what

truly new, through the growth of social conversation that weaves a complex and dynamic canvas, the hatred exploitative aristocracy, rage against the excesses of capital and machinery trade and wanton disregard for the life of the court. This conversation is animated by artistic forms, and not so artistic, representation and public narrative. The theater, hearing, comedy, dance, painting, cartoons, pamphlets, brochures, leaflets, all forms of communication become a political vehicle that is not yet based on the new, but creates things to come through resort to images and the deepest prejudices of the past. The language of the revolutionaries is not entirely new: it is a derivation of traditional languages, adapted to the new requirements of change, political competition and the destruction of the old regime.

The brilliant narrative of Simon Schama (1989) brings out the dynamics between new and old, between tradition and change, between past and future in the great French Revolution. What new metaphors, the words and images that trigger mental circuits that have been there a long time. But even the words and images owe much to the past: the return to Rome is one of the recurring themes in various forms of popular expression in various arts and in everyday communication.

Can you read Marx's phrase about the pressure exerted by the ideas of the dead on the brain of the living and regularity of the revolutions? Marx himself believed that the return of the past would be overcome by the proletarian revolutions by the way they criticize themselves and move from there to find their own language. However, historical evidence shows that it has not been possible until now a supersession of the eternal recurrence of past ideas in the revolutions of the present. In fact, the Bolshevik revolution can be read as a deliberate repetition, a staging of the French Revolution of 1789-1799, with the novelty of a single party. Even his most enduring innovation-Leninist revolutionary party owes much to the organizational model of the Jacobin fraction in the French Revolution and the proposal developed by Blanqui during the revolutions of 1830 and 1848. And the Stalinist terror can be interpreted as a reprint, magnified and bureaucratic and devoid of risk, the Jacobin Terror. Instead of turbulence and uncertainty of the Jacobin terror, where everything was at stake (the country, life, revolution) the terror and secure centralized party power. And instead of the Jacobin universal game in which all gambled his life-even the supreme leader and his followers of Stalin rigged game in which neither the supreme leader and his close associates involved in uncertainty, reaching beyond death, in a position of absolute privilege.

7. Revolutionary Time and Tradition

One of the key issues to discuss is related to revolution is the time. Our common belief is regarded as a directional time and irreversible because the events are directional and irreversible events do not return. Time is ongoing because we experience the events as a continuum. The time is periodic because the events have a beginning and an end. Time

can be measured because the interaction of events can be counted. We see that our experience of time is always on our experience of actual events.

This is essential for the history of revolutions, Marx noted Why ghosts of the Great Revolution of 1789 in the 1848 Revolution, What supports the memory elements Tocqueville in arguing that the facts of the Revolution could be part of a great illusion or mirage?, what reasons accompanying comparisons between the Old Regime and the nostalgia for the monarchy in Mrs. Grace Dalrymple Elliot, What explains the relative indifference of Kant on the events that took place in Paris in 1789? What are the unconscious reasons that lead to Edmund Burke to fail revolutionary temporality, based on the effects of violence that followed the 1789? These are questions whose dimensions exceed the episodic. We are facing one of the central themes historiography of revolutions.

When we ask how to conceptualize the revolutionary period we are in a metaphorical context. In fact, we are unable to refer any historical time without metaphors. We use a number of metaphors to conceptualize time, and in each case, we adjust our ideas to the world, or worlds, to which it pertains that description. Moreover, the differences between *before* or *after* presented on characteristics of the geography of places. Much of our understanding of time is a metaphorical version on our understanding of space we inhabit.

The metaphor of space weather is important in the interpretation of the revolution. The Russian Revolution is presented as a localized movement. The anthem of the regiment built around General Kornilov, Commander Eighth Army's anti-monarchist. Its members adopted the black and red as their favorite colors, adding an emblem of his own design to the arms of his uniform: a skull, crossed wires, a grenade and the name "kornilovitas." Their motto is a powerful metaphor for time:

We do not want the past,
The Czar's not our hero ...

Note that the use of social conversation is in the area of the image of the Tsar, negatively reinforced. Another aspect is the evocation of time in a land rooted popular religious consciousness. It is a past in the overall time but condensed into a reaction against the realities of this geographical area. This means that the movement for soldiers of revolutionary change was seen directly. Cognitive perspective, we speak of an original domain in neural system metaphor.

Many of the songs from the revolutionary time factories expressed through metaphors of quantity:

It has been the people's freedom,
Great is the seventeenth year,

Long live free Russia!

At the time of our great misfortune

The blood shed throughout the year.

But he has kissed freedom

It will never be a slave [...]

(Song Putilov working in the factory, 1917, *Anthology, Leningrad*, 1997, 41)

As we have stressed, the temporal metaphors have a function in a relational space. We can see that terms like "big", "all year", "never", serve as pivots related images compared to long life. Thus "the great seventeenth year, is set as the original domain of a metaphor on the timing of the Revolution, by contrast, the" time of our great misfortune, "just denotes a negative place in the collective memory of the past. Anyone who has kissed freedom: "It will never be a slave." The use of metaphor points to a sense of celebration experienced during the Revolution. The entire unit of the verse shows that the language of time is not an abstract concept, i.e. a category is activated in the brains of the revolutionaries in their new world.

Metaphors of time moving frames applied in specific space. A stationary observer, say, Tocqueville and Marx, are directed at a fixed address: the events and happenings of 1848. What we have is a defined sequence of objects moving past the observer with forward and rear. Moving objects are conceptualized by the observer as being against them. This scheme provides the foundation for a metaphorical mapping in which the elements and structures, events and happenings, people and events are framed from the original time domain revolutionary. Thus we can observe the sequence:

Time objects

The Movement of Objects The "Step" Time

Observer Past

Underlining the orientation metaphor possible composition of space:

The Observer The Present Location

The Observer's Front Space Future

Behind Space Observer Last

The Movement of Things The "Step" of Time.

Past Observer

It is possible to illustrate this with an event after the Iranian Revolution, and the statement of one of its main protagonists. In early January 1989, Khomeini sent a letter to Soviet leader Mikhail Gorbachev, in which he said that because communism had become part of the museum of history, should approach Islam as their way of life before clear up the Soviet Union on the path of materialistic capitalism. This message is very

angry because the ulama rather to recommend to the Soviet leader the Koran or any other of the classics, he advised the comments of Ibn-Arabi, Avicenna. Khomeini's letter was given to Gorbachev. It raised hackles among clerics in Qom, who in an open letter to Khomeini criticized his daring to advocate reading philosophers and mystics. Khomeini's response was published as follows:

This old man who watches over you has suffered more because of the reactionary mullahs on behalf of others. When theology is understood that there had to intervene in public affairs vice acquired under category. If a cleric could and came to be aware of what was happening around them, they were concerned about what could be brought up to. Because it is considered more devoted to those who never left the path of tradition, when learning foreign languages was blasphemy, and philosophy and mysticism are considered infidels own sins [...] Had I continued along this path, I am convinced that the clergy and the seminaries had followed the same course that the Christian Church of the Middle Ages (Axworthy, 2007)

The text contains thematic variations: the transition from Soviet rule, the changes towards a global economy, multilateral relations with Gorbachev's Soviet Union and the evolution of the Iranian Revolution. However, our interest is the framing of weather-related metaphors. We see that a stationary time sequence I oppose another stationary time sequence II. The tradition is evoked metaphorically symbolic relations with the reactionary spirit of the ultra-conservatives. While I was stationary observer sees himself in a metaphor of the Revolutionary time, the space behind the Observer is occupied by those who profess the past (Observer steady II), while the motion of objects in front of the observer is seen in metaphor as "Step" of Time. Faced with a philosopher as Avicenna, the Christian Church in the Middle Age reflected obscurantism. Here the metaphors of time taking particular paths in a space that can be in body, with different experiences of historical causality. A stationary observer later, you can appreciate both positions from a different temporal metaphor. In this case we would have a stationary observer III. And so on.

In the illustration, the following expressions have localized temporal correlations, acquiring, came to be passed, the path of tradition continued, would have remained, the Middle Ages. Each of these words shows the same systematic polysemy between the temporal and spatial significance of the full expressions. The generalization about what is systematic is given by the framing metaphor. This mapping of spatial concepts based on the seasonality has important effects on the interpretation of the facts and inferences ex post to the revolutionary events.

8. Two Observers and the Time

We finally present a case example using the proposed typology, we would identify some of the events outlined in the preceding paragraphs. It is considered privileged Two Observers: François René Chateaubriand and Evariste Galois, who participated in the events that led to the Revolution of July. By choosing these observers believe they can better understand the categories of space, fear, information flows, influence and means, within a perspective that confirms the premises offered on the role of metaphors in revolutions⁴.

Emboldened by the growing power of the ultras, King Charles X decided by the July 26, 1830 to dissolve the parliament to rewrite election laws to allow voting only the rich and suspend press freedom. The ordinances were increasingly impatient radicalism among the revolutionaries. The next day four newspapers published articles that challenged the actions of the king and inciting rebellion. By early evening the streets of Paris were full of people claiming abuse at the policemen who were sent to disperse them. Began to shower stones on the guard, was shot and sparked panic. In the crossfire a girl was killed with one stone. A worker picked up his shaky body, placed it beside the statue of Louis XIV and cried revenge. Soon the city was engulfed in a rebellion as not seen since 1789. Again, built barricades of overturned vehicles and furniture looted from government offices, blocked the streets of Paris.

Galois, who was then a student at the School, could smell the fire in the barricades and hear fragments of the Marseillaise as the revolutionaries were taking to the streets. They mobilized the army to contain the number of citizens who took up arms and mounted barricades. The mutineers were joined the next morning the students of the Polytechnic School. Although there were regiments of the army guarding the entrances of the school, students climbing the walls escaped and joined the barricades, from where they ran numerous bloody offensive against the troops. The streets resounded with the songs of young students, "French Comrades, let us sing the heroic courage of the youth of the Polytechnic School." In the afternoon the young men had controlled the Latin Quarter.

Galois had missed participating in the revolution since the death of his father. But instead of joining his soul mates on the barricades, Galois were forced to remain locked behind the closed doors of the School in the Rue Saint-Jacques a few streets where they developed the revolutionary actions. The director of the School banned all students to get involved. Galois and his companions were prisoners in their own school and recalled the promise he had made upon registration, a pledge of loyalty to the state. The principal threatened to call the troops when necessary to prevent students from joining the insurgency.

Galois was incensed. The afternoon of the second day of the revolution could not take it anymore. That night he just tried to climb the walls, but they were too high. On the third

⁴ The version of the revolutionary Evariste Galois episodes taken from: Marcus du Sautoy: Symmetry A Journey into the Patterns of Nature, pp. 237 283.

day of what would later be called the "Three Glorious Days" the king's soldiers had deserted and had joined his fellow citizens on the barricades or fled into exile with Charles X The white flag of the Bourbons and not flying over Paris. Instead the Republicans had control again. The bells again pointed to the victory of the revolution. There was one problem. The uprising had been so successful that Paris again have the opportunity to resurrect the Republic of the Revolution of 1789. However, for moderate Republicans was a risk we could not run. Europe was no longer isolated in France. There was time for another radical republic, the drill came later in 1848. So the leaders of the Three Glorious Days invited the Duke of Orleans to be the new king, a king who thought the government would hold the institution without trying, like his predecessor, gaining too much power. Crowned as Luis Felipe I on August 9, the king and the tricolor flag appeared together offensively.

For revolutionaries unconditional restoration of the monarchy betrayed the sacrifice of nearly two thousand citizens were killed by deposing the Bourbon flag that flew over Paris. Galois inability to participate in events pushed him toward a radical out of the ordinary. He claimed that the July Revolution had failed, it was necessary to produce another uprising, which wanted to occupy a central place:

If I were sure that a body would be enough to incite the people to revolt, gladly offer my own
(262)

Galois's zeal for the revolution reaches its peak when he returned to Paris in 1830 to begin the new academic year. In a letter to the newspapers accused the director of the School to be a traitor to the Republic for a decision not to allow students to build the barricades. The director was quick to respond by writing a letter to the Minister of Education: "I sent off to Évariste Galois. In consideration of his undoubted talent I have come to tolerate mathematical unconventional behavior, laziness and so hard that his character". But he would not take it anymore. Galois was free.

Galois joined the National Guard, anarchist line. Founded during the height of the revolution of 1789, the Guard was an independent militia in the French army. With their banners, their music, their own uniforms, the Guard was rather the republican movement's military wing radical. However, a few months after his coronation, Luis Felipe outlawed both the National Guard as the Society of Friends of the People. Meetings of its members now had to be held in camera.

For Galois expulsion High School was a liberating experience, but resulted in unpleasant stop charging the government scholarship befitting her as a student. Given in the back of a bookseller friend, talks offered the opportunity to make public the mathematical progress was achieved. Put an ad in the newspaper in which he warned

from the first meeting to be held on January 13, 1831 in the library Caillot, across the street from the Sorbonne. This announcement drew an impressive audience of more than forty people. Several members of the Society of Friends of the People, use Galois expected the talks to promote the revolutionary cause. But who expected political speeches on the revolution were soon disillusioned. A few weeks later the audience was dissolved. Galois had tried to explain their new ideas to create a revolutionary language that transformed the study of mathematics.

Later, on the eve of the Bastille, Galois was arrested again, this time for wearing the uniform of the National Guard prohibited and bear arms, and was jailed that night. His cellmate wills Galois worse things to fill the walls of a political graffiti and slogans against the king. This time the courts were not so lenient. After three months awaiting trial, Galois was convicted and sentenced to nine months in prison in the prison of St. Pelagie, south of Paris. We know that this place gets Galois develop shows that positioned him as one of the most brilliant mathematical minds of the nineteenth century.

In a broad context, the revolutionary spirit of Galois responds to the original nature of the Great Revolution. Preserving the strength of future change and forward motion that Marx observed in the Eighteenth Brumaire. Unlike the characters he later represented the puppet theater in the revolutionary events of 1848. Galois competes against a decadent time, so that their participation in the revolution of July, seeks to rescue the present the spirit of the Great Revolution. These aspects confirm our focus on metaphors of time.

One of the characters is that we have emphasized the centrality of neural metaphors. Metaphors are not only an instrument of abstract reasoning, but through them to make inferences in specific domains. The revolutionary dimension of time Galois is framed by the memory of his father's heroic participation in the Revolution of 1789. So that reduced expression of revolutionary events (the arrival of Louis Philippe) only managed to undermine the greatness of the first act. Moreover, the experience of time into Galois, in this revolutionary, it also helps to reconstruct their past and their future state. Memory is updated making it easier to build future images.

Look at this in perspective, the metaphor of Galois as an Observer in Motion, in which the times are locations in space and time intervals are distances, the dynamics helps us to see under what conditions and events can be interpreted as change or continuity, change or reverse, change or stagnation. At one extreme, the director of the School with their discipline and his defense of the status quo, represents the stationary observer who occupies a place behind the Great Revolution. While at the other end radical members of the National Guard are among those representing the Galois-observer whose place is in front of what happens. The direction of time in both cases has a counter on the meaning of the revolution.

Another witness to the July Revolution corresponds to François René de Chateaubriand (Saint-Malo, 1768-1848) and his work: *Mémoires d'outre-tombe* (1848-1850). Central and star witness first-line arguments Chateaubriand meets him more devoted to assessing the role of time in the French Revolutions. Memoirs of the grave, according to the unique presentation that makes Marc Fumaroli (French Academy): "In many respects, the memoirs of Chateaubriand is the masterpiece of this new generation of memoirs written by actors or victims of the cataclysm of the century revolutions "(I. II). In fact, it is a work made for forty-five, and covers the crucial period in France before and after the Great Revolution of 1789, including the time of the Restoration, and the fall of Charles X (1830). Chateaubriand is, in our study, a brain preferred to narrate the evolution of the Old Regime and the effects of revolutions. More specifically, in his testimony can be found as a liberal Republican reaction to the effects achieved by the Great Revolution.

According to our interpretation, Galois remembers as metaphors of time contain the force caused by the Great Revolution of 1789. Your brain has been found with the Three Glorious, a means to express their resistance against the policy during the Restoration. So time is a moving object and moving forward. This metaphor has coherence. As a major event in the experience of earlier generations, the Great Revolution had, for young and Galois, a powerful call to conserve. So the time was evoked as a sensitive. In a sense, the revolutionary struggle as the generations move stay in one place, in another sense, generations move while time is stopped. What both have in common is the relative motion, with the future ahead and the past behind. Both metaphors imply that time goes from front to back.

Chateaubriand's position is radically different with respect to time. The use of metaphors in the Memoirs is a complete unit worthy of study. Here is a selection of them:

[1] Nothing big today, because nothing is high (1896), [2] Today that revolution has been consummated, it is considered an offense to dare to remember what happened at the beginning of it, raising fears diminish the position obtained, and anyone who does not see the origin of incipient made the serious of the fait accompli is a detractor (1907), [3] The European monarchy had been kept alive in France the monarchy have kept mother and daughter of a saint and a great man; but his fertile seeds have been scattered, nothing will rise again from them. (1908), [4] I apologize for all these memories, but perhaps the tyranny of my memory, when you go into the past in the present, strip him of a part of it that is miserable. (1922), [5] Unfortunately, I am a creature of this, and I do not want to capitulate to the fortune. There is nothing in common between Cicero and I, but does not excuse their fragility: posterity has not been able to forgive a moment of weakness to a great man for another great man, what would my poor life if he lost his only asset, integrity by Luis Felipe de Orleans? "(1934), [6] A century had not matured destiny of people as the last three suns that shine just about France. There has been a great crime; it has produced the strong emergence of a principle: Should we break down because of this crime and the moral and political victory was its consequence, the established order of things? "(1942), [7] In this country tired, larger

events are not represented but a drama for our entertainment: they take the audience as the curtain is rising, and when it falls, leave nothing but a useless memory "(1949), [8] Today revolutions are made by machine, are made so fast that a monarch, King still on the border of their state, is but an exile in his capital "(1950), [9] There is enough prodigious revolution, described the minute, not reduced to minimal proportions. The events come from the heart of things, like men of the mother's breast, accompanied by the imperfections of nature. The miseries and grandeur are twin sisters, born together, but when deliveries are vigorous, the miseries die at some point, leaving alive only the greatness. To judge impartially the truth that has to be, it must therefore be at the point of view from which posterity will consider the fact "(1951), [10] High School students and the Ecole Polytechnique hatched too late in their schools on 28 to take part in military actions, were taken by the village head 29, with a naturalness and an admirable candor "(1952)., [11] The fifteen years of the Restoration under a constitutional regime had been born among us that humanitarian spirit of legality and justice than twenty-five years of revolutionary and warrior spirit had been able to produce. The law entered force in our habits seemed to have become the common law (1953) [12] The July riots have nothing to do with the policy itself, have to do with the social revolution which is constantly. For the continuing effect of the general revolution, the July 28, 1830 is not the inevitable consequence of the January 21, 1793. The first work of our deliberative assemblies had been suspended, had not been completed. In the course of twenty years the French had become accustomed, like the English under Cromwell, to be governed by other masters than his former sovereign. The fall of Charles X is the result of the beheading of Louis XVI and the overthrow of James II is the result of Charles I. The revolution seemed to fade in the glory of Bonaparte and the freedoms of Louis XVIII, but its germ was not extinct, posted at the bottom of our customs, developed when the errors of the Restoration it overheated, and soon sprout " (1954-1955), [13] Our ideas are progressive, but can sustain our habits? Do not be surprised that people of fourteen centuries old, having completed this journey with an explosion of miracles, had come to an end. If you arrive at the end of these memoirs, you will see that doing justice to all that I have seemed beautiful, in every period of our history, I think, ultimately, the old society is dying "(1957), [14] Three disasters have marking the three preceding parts of my life: I saw death of Louis XVI during my career traveler and soldier at the end of my literary career, disappeared Bonaparte, Charles X closes its fall, my political career "(1957).

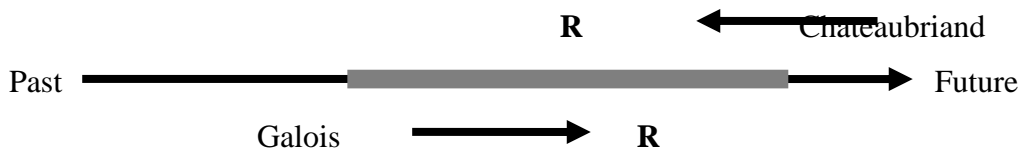
Note that in [1] mixed metaphor of a causal link between quantity and quality to compare default of its time, while in [2] the metaphor leads to a retaliation to the absurd to judge the effects by their causes, in [3] time metaphor acquires ownership of contrast between unity and multiplicity, while in [4] the metaphor exposes the components of time on memory functions. This selectively reconstructs the unequal relations between tradition and revolution in [5] the use of historical analogy does not make a copy evocation of the hero before; on the contrary, in the fold of Cicero to the Emperor, Chateaubriand is the best counterexample. Again not in Rome where the ideals of his time in [7] we have a theatrical metaphor for time. The use of the image plays back to the tense relations between tradition and revolution in [8] the mechanistic metaphor contains a retaliatory shows the revolution as a temporary product unpublished. The time is implicit in the spatial metaphor between center and periphery.

Chateaubriand reflects both the shape of events as her point of view. The form is related to how actions are carried out in time. Here is a deep division that exists between "states" of memory, in which nothing changes, "nothing is great", "I am a creature of this" and events in which something happens. The events in turn can be divided between those who can go on indefinitely, "revolution," a drama played ", and culminating in an end point," European monarchy, "the established order of things". Those who are called telic endpoint, a word related to teleology, the Greek telos, "end." The bottom line is the direct object, produced by an agent. Chateaubriand's expectation about the end of the Great Revolution to Napoleon, a hope of many French felt that the First Republic the act of drawing the circle is completed once.

See [9] with the metaphor reduces the quality time of the event. The use of proportionality is to limit the greatness of the event. A biological metaphor emphasizes time and again to change domain. And the stationary observer stands on the side of the future as a judge. [10] In this section Chateaubriand uses the metaphor of time to ridicule the revolutionary events themselves. In particular, both the temporal sequence (from one day to another), as the mention of places and subjects, is intended to highlight the improvised nature of the revolutionary events, in [11] the period of the Restoration is presented as temporal metaphor related to the tradition.

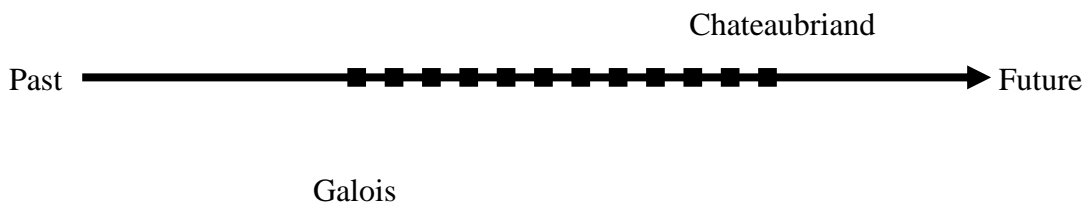
With metaphors, verbs are also divided according to whether they describe an event that extends over time, as I do not capitulate, "" impartial judge "in which case they are called" durative "or an instant success as" making revolutions "" jobs for the people to his head. " In [12] develops the game of metaphors contrasts between revolution and tradition. Note that in each case the time plays a different role. The July revolution is reduced to "disturbance" We had a political revolution (1789) to a social revolution (1830), the comparison with the period of Cromwell in England compared the decay of the monarchy, "revolution" is a term used spatial metaphor in the past (back), but the irony of continuous observations in the future (below). The metaphor of revolution as a disease In [13] the metaphor of the revolutionary brain compared to the weight of tradition. Time behaves as a witness to the decline, in the middle of a dying society. Finally in [14] the temporal metaphor deploys powerful comparisons between different periods evolve into its decadent state. Note that the historical moments described a change in direction contrary to the promises made by the revolution. The spatial metaphor reflects the sunset of republican culture in parallel to the political career of Chateaubriand.

To understand both the position of Galois as Chateaubriand with respect to events that were witnessed: The Revolution of July, we will display the time as a line. Denote the revolution as an event that has no exact boundaries (permanent revolution) and a blurred border. Indeed, although similar points in their interpretation of events were diametrically opposed:



In the interpretation of Galois, the time of the Great Revolution of 1789 is durable, with the *Restoration* and the arrival of Louis Philippe of Orleans, were restored back the conditions of the Old Regime. So the events of the July Revolution (present tense) meant an opportunity to project the achievements of the Great Revolution. In Chateaubriand Great Revolution it meant a decline in the political evolution of the monarchy. Added the July Revolution, therefore, reasons to watch the decline of the past tense (better).

From our point of revolutionary events can be described in two ways: with a metaphor durative, covering the process and its climax, as in the time of Chateaubriand, or a metaphor to include momentary verbs that directly to the climax, as in the Galois time. In both protagonists the events of the Revolution of July are just exhausted. For the first: decadence, and for the second: the future. In the case of Galois, a future that promises to close the circle opened by the Great Revolution. In the case of Chateaubriand, the July Revolution expands the flash of single fact decadent revolutions.



We have emphasized that a main feature of metaphors is that revolutionary time are configured the same way that physical objects and substances, as if the event was mined from a kind of temporal substance. In this area we see limited success (the July Revolution) and events without bounds: the Great Revolution (Galois), democracy (Chateaubriand / Tocqueville). Phrases like: "Our ideas are progressive, but sustain our habits" or "at the end of my career are part of the brain in which time segments are prolonged, are measured and cut. The brain reconstructs passages of experience evaluating its duration in relation to a specific event or major event. They are temporary versions metaphorical framework of the brain that can convert objects episodes, as when Galois offers her body as a trophy to the revolution.

We have emphasized that a main feature of metaphors is that revolutionary time are configured the same way that physical objects and substances, as if the event was mined from a kind of temporal substance. In this area we see limited success (the July Revolution) and events without bounds: the Great Revolution (Galois), democracy (Chateaubriand / Tocqueville). Phrases like: "Our ideas are progressive, but sustain our habits" or "at the end of my career are part of the brain in which time segments are prolonged, are measured and cut. The brain reconstructs passages of experience evaluating its duration in relation to a specific event or major event. They are temporary versions metaphorical framework of the brain that can convert objects episodes, as when Galois offers her body as a trophy to the revolution.

A more powerful device in the metaphors of the revolutionary period relates to the point of view of stationary observers. The phenomenon that Lakoff Johnson called: "framing". As if on an online sequence of historical events get close a magnifying glass to expand the characters and shapes. When backing up our field of view images are fuzzy and blurry, places and cities appear as smears. Under the terms of Chateaubriand, for example, we have a visual of the following type:



The second view (Galois) or the right position can be visualized as follows:



Metaphors are really key time to explain and understand revolutionary thought and language. The brains of the living are equipped with the ability to cross the lining of the sensory aspect and discern the abstract construction underneath. The narrative power in

the metaphors of the French, Russian and Iranian contain similar structures. Especially, when using time-related metaphors. The power of Marx and Tocqueville, Chateaubriand or Schama, to imagine analogies allows us to apply neural structures to new conditions. Moreover, the metaphors of time in the revolutionary events significantly extend the expressive power of language. The metaphors we open a way to understand things that have been excluded in advertising or conventional interpretations of the revolutions. Metaphorical descriptions as those of Marx in the Eighteenth Brumaire or Chateaubriand in the Proceedings are also pleased that the language can provide to enjoy metaphors writers direct witnesses or experts, and live with them critical moments in the history of humanity.

Conclusions

This paper has established the core aspects of a framework for research on revolutions. Our approach includes a heuristic based on an idea suggested by Marx in the Eighteenth Brumaire of Louis Bonaparte: "The tradition of all dead generations weighs like a nightmare on the brain of the living." From this maxim of Marx advance on conventional interpretations by postulating that the language and metaphors are a challenge in several respects: (1) The brain is a physical basis for understanding key political revolutions, (2) advances in neuroscience and language (Lakoff / Johnson / Narayanan) have allowed the reconstruction of conceptual frameworks in various fields, including philosophy, mathematics and politics (3) The language expressed in songs, text, flags, emblems, illustrations, slogans, speeches and rumors is key to represent and demonstrate loyalty to the idea of revolution and, more crucially, to "make" the revolution, (4) Metaphors are a powerful rational action in revolutionary processes. One interpretation of these can contribute to decipher, for example, how the brain are activated in neural systems that link past and present, how to operate the symbolic frameworks of language to influence political opinion, how metaphors interact with processes artificial simulation or how metaphors evolve in a revolution from simple metaphors.

Our analysis of the French revolution (1789-99, 1848-51, 1870-71), Iran (1977-81) and Bolshevik (1917-1924), supports the importance of language in relations between traditional and revolutionary spirit. In this sense the classic works of Marx and Tocqueville, in the nineteenth century, as well as works by Schama, Furet, Karatani, Kurzman, Figes, Mayer and Lakoff, in the twentieth century, have been granted key passages to study the tense dialectic between tradition and revolution. In a broad context suggest changes or revolutions original breaks in attitudes and changes of political power with radical social consequences. In revolution the dominant metaphor apparently moving successive linear temporalities. However, we observed that the tradition is heavy on the brain of the living. With tradition, the facts and events of the present are revealed less original, and many deeds and heroes copies represent only the historical stage, or the sudden activation of basic notions of honor and equality. Again,

revolutions can respond more symbolic and figurative expectations, which made specific facts or aggregation of economic, social and political, as has been the tradition in the social sciences. Without ignoring the importance of these factors, we just wanted to highlight the importance of the contingent and the metaphorical in the actual development of revolutions, i.e. its observable paths. Crucial problems of interpretation remain open for future research.

Subsequent work may help us better understand the role of rumor and information in the fall of old regimes and the mechanisms for the dissemination of rumors in the revolutionary process. With the explanatory framework of symbolic languages given by Ervin Goffman, we can better explore transformations revolutions as symbolic, cultural geography in the October Revolution or the symbolic changes in February 1848. Revolutionary language is not uniform in time: it is a reflection of the differences between the language of citizenship and language classes, and how to build the new political revolution. Similarly, in every experience revolutionary dominant metaphors are essential to compare and identify changes and continuities.

The case studied in detail between Galois and Chateaubriand, provides sufficient evidence to explore how the metaphors of time are central. The historical evidence is facts, events or developments, which have been recorded in documents, files or hearsay. Ex post status of the historian and performer suggests inescapable limitations. Languages being the object of our work on speed, the metaphors of time are a key to understanding the views of its principal stakeholders.

References

David Andress. 2005. *O Terror. Guerra Civil e a Revolução Francesa*. Rio de Janeiro: Editora Record.

Christopher J. Berry, David R. Shanks and Richard N.A. Henson. "A unitary signal-detection model of implicit and explicit memory", *Trends in Cognitive Sciences* Vol.xxx No.x, pp. 1-7.

Ernst Cassirer. 1998. *Filosofía de las formas simbólicas*. México, DF: Fondo de Cultura Económica.

Antonio Damasio. 2005. *En busca de Spinoza: neurobiología de la emoción y de los sentimientos*. Madrid: Crítica.

Orlando Figes. 1996. *A People's Tragedy: The Russian Revolution 1891-1924*. New York: Viking Penguin.

François Furet. 1981. *Interpreting the French Revolution*. New York: Cambridge University Press.

Vittorio Gallese and George Lakoff. 2005. The Brain's Concepts: The Role of the Sensory-Motor System in Conceptual Structure, *Cognitive Neuropsychology*, 22: 455-79.

Ervin Goffman. 2009. *Estigma, la identidad deteriorada*. Buenos Aires: Amorrortou.

Alistair Horne. 1965. *The Fall of Paris: The Siege and the Commune 1870-71*. New York: Penguin.

Daniel Kahneman and Amos Tversky. 1982. *Judgment Under Uncertainty: Heuristics and Biases*. New York: Cambridge University Press.

Kojin Karatani. 2006. *Transcritique: On Marx and Kant*. Cambridge, MA: MIT Press.

Charles Kurzman. 2005. The Network Metaphor and the Mosque Network in Iran, 1978-1979. In: Miriam Cooke and Bruce B. Lawrence (eds.), *Muslim Networks, from Hajj to Hip Hop*. Chapel Hill: University of North Carolina Press.

Charles Kurzman. 1996. Structural Opportunity and Perceived Opportunity in Social Movement Theory: The Iranian Revolution of 1979, *American Sociological Review* 61: 153-170.

Charles Kurzman. 1993. A Dynamic View of Resources: Evidence from the Iranian Revolution, *Research in Social Movements, Conflicts and Change* 17: 53-84

George Lakoff. 2008. *The Political Mind: Why You Can't Understand 21st-Century American Politics with an 18th Century Brain*. New York, NY: Viking.

George Lakoff and Mark Johnson. 1999. *Philosophy in the flesh, the embodied mind and its challenge to western thought*. New York: Basic Books.

George Lakoff and Mark Johnson. 1980/2003. *Metaphors We Live By*. Chicago: Chicago University Press; 2nd ed.

Abninder Litt, Chris Eliasmith, Paul Thagard, "Neural affective decision theory: Choices, brains, and emotions", *Cognitive Systems Research* 9, 2008.

Karl Marx. 1852/2008. *The 18th Brumaire of Louis Bonaparte*. New York: International Publishers.

Karl Marx and Frederick Engels. 1845. The Holy Family, Marxist Internet Archive (MIA, <http://www.marxists.org/>).

Arno J. Mayer. 2000. *The Furies: Violence and Terror in the French and Russian Revolutions*. Princeton: Princeton University Press.

Arno J. Mayer. 1981. *The persistence of the Old Regime – Europe to the Great War*. New York: Pantheon Books, Random House.

Srini Narayanan. 1999. Moving Right Along: A Computational Model of Metaphorical Reasoning About Events, Proceedings of the National Conference on Artificial Intelligence: 121-128.

Simon Schama. 1989. *Citizens. A Chronicle of the French Revolution*. New York: Vintage.

Michael Sonenscher. 2009. “Ideology, social science and general facts in late eighteenth-century French political thought”, *History of European Ideas* 35.

Vincent Robert. 1996. *Les Chemins de la manifestation. 1848-1914*. Lyon: Presses Universitaires de Lyon.

Marc Wittmann and Martin P. Paulus. 2010. “Decision making, impulsivity and time perception”, *Trends in Cognitive Sciences* Vol.12 No.1.

Salganik, M. J., P. S. Dodds, and D. J. Watts. 2006: “Experimental study of inequality and unpredictability in an artificial cultural market”. *Science*, 311, 854-856.

Estrada, Fernando. 2008. “Redes y mecanismos de opinión pública”, *Cuadernos del Cipe*, Bogotá, Universidad Externado de Colombia.

Grace Dalrymple Elliott, [1859, *Journal of My Life during the French Revolution*], Diario de mi vida durante la Revolución Francesa, Madrid, Valdemar, 2001.

Antología, Leningrado, 1997, 41, Citado por Orlando Figes y Boris Konitskii en: *Interpreting the Russian Revolution*, Yale University Press, 2001.

Michael Axworthy, *Iran: Empire of the Mind*, Penguin Books, 2007, 317.

Marcus du Sautoy: *Symmetry A Journey into the Patterns of Nature*, New York, Harper, 2008, pp. 237 – 283.

Chateaubriand, *Mémoires d'outre-tombe* (1848-1850); Edición española: *Memorias de ultratumba*, 4 vol., Acantilado, Barcelona, 2753 páginas.